2004 Near Network Conference

NESDIS OSO Future Vision

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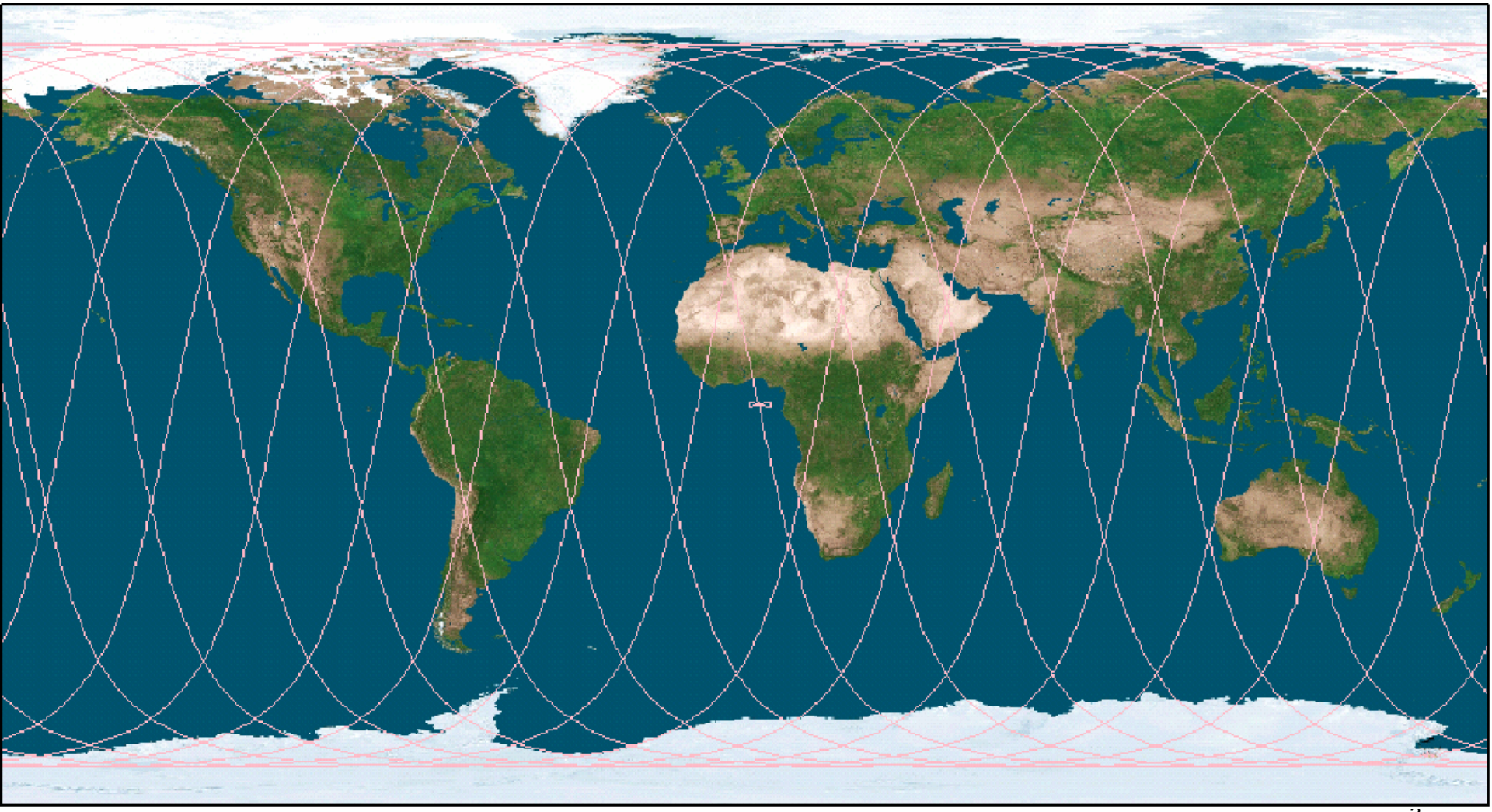
Director – Office of Satellite Operations

Mission



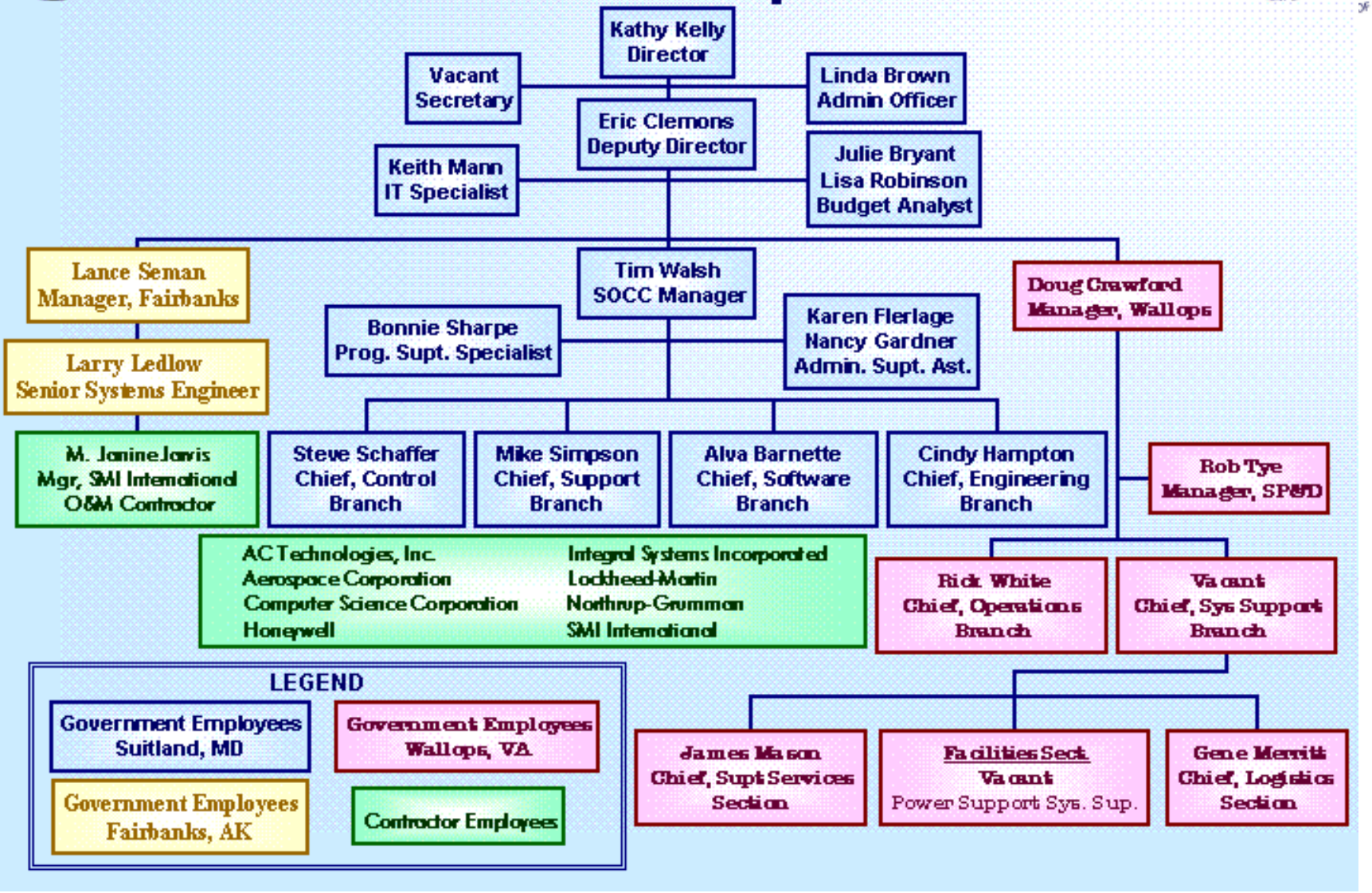
NOAA/NESDIS/OSO

- NOAA – National Oceanic and Atmospheric Administration
  - NESDIS (National Environmental Satellite, Data, and Information Service) – operates the satellites and manages the processing and distribution of the millions of bits of data and images the environmental satellites produce daily. Whose prime customer is the National Weather Service, which uses the data to create forecasts for television, radio, and weather advisory services.
    - OSO (Office of Space Operations) – 300+ government employees and contractors working in tandem to manage and direct the operation of NOAA's satellites and the acquisition of remotely sensed data.

OSO Overview

- Operational responsibility for the Satellite Operations Control Center (SOCC) at Suitland, MD and Command and Data Acquisition (CDA) facilities at Wallops, VA and Fairbanks, AK to command and control satellites, track satellites, and acquire their data
- Supports launch, activation, and evaluation of new satellites and the in-depth assessment of satellite and ground systems anomalies
- Prepares plans and procedures for responding to satellite and ground anomalies, and establishes and coordinates the schedules for satellite operation and data acquisition to meet users' needs
- Evaluates the technical performance of the satellites and maintains current information and future prediction on satellite orbits and attitudes
- Evaluates the effectiveness of the operational facilities and procedures in terms of the quality, quantity, coverage, and timeliness of the data acquired

Office of Satellite Operations



Suitland SOCC Facility

Wallops CDA

Fairbanks CDA

Interoperability Opportunities

- NOAA can use excess capability to take data from commercial satellites, spacecraft of foreign governments and U.S. government satellites on a cost reimbursable basis, assuming certain policy and administrative requirements are satisfied
  - Primary ground station
    - Command and Control (e.g. DMSP, OSTM/JASON-2)
    - X-band Receive Operations
      - FCDAS is primary X-band receive site for Windsat/Coriolis
  - Backup ground station
    - Available on a contingency basis (e.g., Metop)
    - New X-band receivers will be fully programmable and compatible with GSIF at FCDAS. The receivers can be interfaced to the GSIF input matrix switch using available input ports
    - NOAA stations have excess capacity and could provide support on a non-interference basis

Progress Since June 2003

NASA/NOAA MOU

- NASA and NOAA agreed to provide mutual backup for ground network facilities/assets.
- MOA signed by both parties in early June
- Certification of Fairbanks CDA as AQUA acquisition site underway
- Plan to provide post launch acquisition support for AURA (July 2004)
- Plans to convert WCDA to ADEOS receive site suspended when S/C failed.

Other Activities

- Developing Agreement with Norwegian Space Center to provide mutual backup and use FCDA excess capacity for acquisition of Earth observing and Environmental Satellite programs of interest.
- Cost reimburseable – Emergency or planned support.
- Exchange visits planned.

Other Activities

- OSO drafting agreement with USAF with classified annex to supply acquisition support for specific missions on reimbursable basis.
- OSO working with Integrated Program Office to develop capability with Svalbard NOAA antenna (SG-4) and new fiber network to acquire NOAA POES “Blind” orbit data.
- NOAA continues to plan for OSTM (Jason-2) operations and acquisition at both CDAs.

Vision

- NOAA/OSO continues to explore opportunities to broaden the support activities of its CDAS beyond current NOAA missions.
- Ocean Commission recommends that NOAA continue to transition NASA Earth and Environmental Science research missions to operational environment.

Mission Support

Current Missions

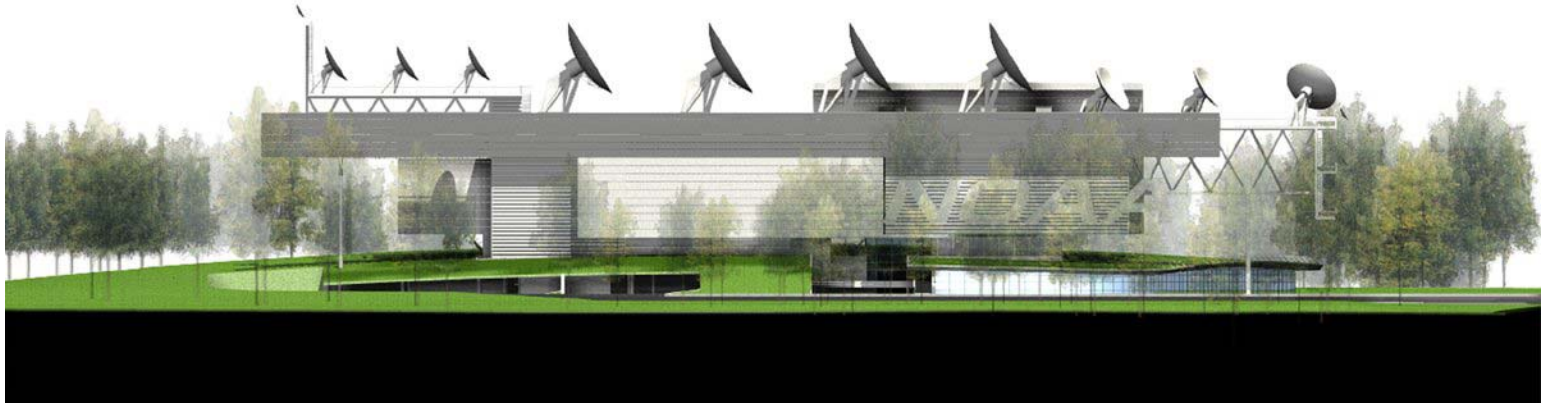
- GOES I-M
- POES
- DMSP
- Coriolis
- METEOSAT - 7
- Meteosat Second Generation (MSG)
- ACE
- EOS Contingency

Future Missions

- GOES – NO/P
- GOES – R
- POES – N, N'?
- OSTM
- COSMOS
- METOP
- ACE-Follow On
- GEOSTORM
- Space Link Extension (SLE)

Missions of Opportunity

NOAA Satellite Operations Facility



NOAA Satellite Operations Facility